

WHAT IS CLAIMED IS:

1. A method of installing a well screen in a subterranean well, the
5 method comprising the steps of:

providing the screen including a filtering layer with a temporary sealing
substance impregnated in the filtering layer and preventing fluid flow through
the filtering layer;

positioning the screen in a wellbore of the well;

10 expanding the screen in the wellbore; and

degrading the sealing substance, thereby permitting fluid flow through the
filtering layer.

2. The method according to claim 1, wherein the degrading step is
15 performed after the expanding step.

3. The method according to claim 1, wherein the degrading step is
performed prior to the expanding step.

20 4. The method according to claim 1, wherein the degrading step
further comprises exposing the sealing substance to water in the wellbore.

5. The method according to claim 1, wherein the degrading step further comprises exposing the sealing substance to elevated temperature in the wellbore.

5 6. The method according to claim 1, wherein in the providing step the sealing substance comprises a degradable polymer.

7. The method according to claim 6, wherein the degradable polymer comprises a polysaccharide, chitin, chitosan, protein, aliphatic polyester, poly(lactide), poly(glycolide), poly(ϵ -caprolactone), poly(hydroxybutyrate),
10 poly(anhydride), aliphatic polycarbonate, poly(orthoester), poly(amino acid), poly(ethylene oxide), or a polyphosphazene.

8. The method according to claim 1, wherein the providing step
15 further comprises positioning the filtering layer between an outer shroud and an inner base pipe of the screen.

9. The method according to claim 1, wherein the providing step further comprises providing the screen with a source of water in the form of a
20 hydrated organic or inorganic solid compound.

10. A method of installing a well screen in a subterranean well, the method comprising the steps of:

providing the screen including a temporary sealing substance preventing fluid flow through a wall of the screen, the temporary sealing substance
5 comprising a polysaccharide, chitin, chitosan, protein, aliphatic polyester, poly(lactide), poly(glycolide), poly(ϵ -caprolactone), poly(hydroxybutyrate), poly(anhydride), aliphatic polycarbonate, poly(orthoester), poly(amino acid), poly(ethylene oxide), or a polyphosphazene;

conveying the screen into a wellbore of the well while the sealing
10 substance prevents fluid flow through the screen wall; and

degrading the sealing substance, thereby permitting fluid flow through the screen wall.

11. The method according to claim 10, further comprising the step of
15 expanding the screen in the wellbore.

12. The method according to claim 11, wherein the expanding step further comprises using an expander tool to expand the screen, and wherein the conveying step further comprises conveying the expander tool into the wellbore
20 with the screen.

13. The method according to claim 11, wherein the expanding step is performed while the sealing substance prevents fluid flow through the screen wall.

5 14. The method according to claim 11, wherein the conveying and expanding steps are performed in a single trip into the well.

15. The method according to claim 11, wherein the degrading step is performed prior to the expanding step.

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16. The method according to claim 11, wherein the degrading step is performed after the expanding step.

17. The method according to claim 10, further comprising the step of
15 circulating fluid through the screen while the sealing substance prevents fluid flow through the screen wall.

18. The method according to claim 17, wherein the circulating step is performed prior to expanding the screen in the wellbore.

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19. The method according to claim 18, wherein the conveying, circulating and expanding steps are performed in a single trip into the well.

20. The method according to claim 10, wherein the degrading step further comprises exposing the sealing substance to water in the wellbore.

5 21. The method according to claim 10, wherein the degrading step further comprises exposing the sealing substance to elevated temperature in the wellbore.

22. The method according to claim 10, wherein the providing step
10 further comprises impregnating a filtering layer of the screen with the sealing substance.

23. The method according to claim 22, wherein the providing step further comprises positioning the filtering layer between an outer shroud and an
15 inner base pipe of the screen.

24. The method according to claim 10, wherein the providing step further comprises providing the screen with a source of water in the form of a hydrated organic or inorganic solid compound.

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25. The method according to claim 10, wherein the sealing substance comprises a plasticizer.

26. The method according to claim 10, wherein the sealing substance comprises poly(lactic acid).

5 27. The method according to claim 10, wherein the sealing substance comprises a stereoisomer of a poly(lactide).

28. The method according to claim 10, wherein the sealing substance comprises poly(phenyllactide).

29. An expandable well screen system, comprising
a well screen including a filtering layer impregnated with a temporary
sealing substance which prevents fluid from flowing through the filtering layer,
and

5 wherein the screen has an expanded configuration and an unexpanded
configuration in a well.

30. The system according to claim 29, wherein the filtering layer is
positioned between an outer shroud and an inner base pipe of the screen.

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31. The system according to claim 29, further comprising an expander
tool attached to the screen while the sealing substance prevents fluid flow
through the filtering layer.

15 32. The system according to claim 31, wherein the expander tool
expands the screen from the unexpanded configuration to the expanded
configuration while the sealing substance prevents fluid flow through the filtering
layer.

20 33. The system according to claim 29, wherein the sealing substance
degrades when exposed to a water source in the well.

34. The system according to claim 33, wherein the water source is included in the screen.

35. The system according to claim 34, wherein the water source
5 comprises a hydrated organic or inorganic compound.

36. The system according to claim 33, wherein the water source is present in the well prior to positioning the screen in the well.

10 37. The system according to claim 33, wherein the water source is introduced into the well after positioning the screen in the well.

38. The system according to claim 29, wherein the sealing substance comprises a degradable polymer.

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39. The system according to claim 38, wherein the degradable polymer comprises a polysaccharide, chitin, chitosan, protein, aliphatic polyester, poly(lactide), poly(glycolide), poly(ϵ -caprolactone), poly(hydroxybutyrate), poly(anhydride), aliphatic polycarbonate, poly(orthoester), poly(amino acid),
20 poly(ethylene oxide), or a polyphosphazene.

40. The system according to claim 29, wherein the sealing substance comprises a plasticizer.

41. The system according to claim 29, wherein the sealing substance
5 comprises poly(lactic acid).

42. The system according to claim 29, wherein the sealing substance comprises a stereoisomer of a poly(lactide).

10 43. The system according to claim 29, wherein the sealing substance comprises poly(phenyllactide).